











## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

09-323970

(43)Date of publication of

application:

16.12.1997

(51)Int.Cl.

CO7C381/12 GO3F 7/004 GO3F 7/004 GO3F 7/O39 H01L 21/027

(21)Application

08-307362

(71)Applicant: SHIN ETSU CHEM CO LTD

number:

01.11.1996 (22)Date of filing:

NIPPON TELEGR & TELEPH CORP < NTT>

**OSAWA YOICHI** (72)Inventor:

> WATANABE SATOSHI TAKEMURA KATSUYA **NAGURA SHIGEHIRO** TANAKA HARUYORI KAWAI YOSHIO

(30)Priority

**Priority** 

07309847 Priority 02.11.1995 Priority JP

number:

date:

country:

(54) NEW SULFONIUM SALT AND CHEMICAL AMPLIFICATION POSITIVE-TYPE RESIST MATERIAL (57) Abstract:

PROBLEM TO BE SOLVED: To obtain a new sulfonium salt suitable as a component of chemical amplification positive-type resist materials having high resolution ability suitable to fine processing technique. SOLUTION: This new compound is a sulfonium salt of the formula (R1 is an alkyl, alkoxy or dialkylamino; OR2 is an acid-unstable group; Y is a 1-20C straight-chain, branched or cyclic alkylsulfonate; (n) is an integer of 0-2; (m) is an integer of 1-3, (n+m)=3; (r) is an integer of 1-5; (p) is an integer of 0-5; (g) is an integer of 0-4, (g+r) is an integer of 1-5), e.g. butanesulfonic acid tris(4-tert-butoxyphenyl)sulfonium. This compound of the formula is obtained, for example, by the following process: a tbutoxyphenyl Grignard reagent is prepared from a 3- or 4-halogenated tbutoxybenzene and then reacted with the reaction product obtained by reacting a diaryl sulfoxide with a trialkylsilyl chloride followed by conducting anion exchange.

$$\left(\begin{array}{c} Y^{-} \\ (R')_{\epsilon} \end{array}\right)_{0} \begin{array}{c} Y^{-} \\ S^{-} \end{array} \left(\begin{array}{c} (R')_{\alpha} \\ (OR')_{\epsilon} \end{array}\right)_{0}$$

## LEGAL STATUS

[Date of request for examination]

07.10.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]